IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 7, May 2024

Charging Slot Prediction and Automation System for Electric Vehicle Charging Station

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Abstract: *Governments worldwide are prioritizing alternative energy options for transportation due to rising pollution levels and depleting oil reserves, driving the shift towards electric vehicles (EVs). With EVs gaining popularity, efficient charging infrastructure is crucial for sustaining E-Mobility services. We've developed a next-generation online EV charging slot booking system, integrating a stochastic queuing model to optimize charging parameters and minimize delays. Our cloud-based charging station management platform efficiently networks and manages multiple stations, reducing waiting times and preventing EVs from halting due to battery depletion. This initiative aims to create a cost-effective and efficient system, facilitating the widespread adoption of electric mobility and addressing environmental concerns.*

Keywords: Slot booking, geo location, payment facility, user and admin login, dynamic slot allocation, time saving